



2000 Annual Report

# Johnson Space Center

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**Roy S. Estess**  
Acting Director  
Johnson Space Center

**W**e at Johnson Space Center celebrated Year 2000 all year long – with hard work, bold progress and historic firsts.

Most notably, the International Space Station continued to grow. It gained three major elements: the Service Module, the Integrated Truss, and the first U.S. Solar Arrays. The first station crew

rocketed to its new home in orbit, and the Center's ground teams worked 24 hours a day to support our permanent presence in space.

Our Space Shuttle Program flew five safe and successful missions. STS-99 gathered three-dimensional mapping data from nearly all the inhabited Earth. The four missions that followed supplied and constructed the station. Space Shuttle *Atlantis* launched with its new "glass cockpit" instrument displays, and spaceflight safety received increased attention.

Johnson Space Center made strides in research and development, such as breakthroughs in cellular biotechnology and advances in spacecraft design, including advances in the X-38 Crew Return Vehicle and the TransHab space habitation module projects. Our White Sands Test Facility provided testing and laboratory support to other agencies and corporations, and was selected by the Environmental Protection Agency as a charter member of the National Environmental Achievement Track.

We expanded our outreach. Our Open House set community attendance records. Inspection 2000 attracted a full house of professionals, who came from industry, government, and academia to explore the benefits of our expertise. Educational outreach included the Science Advisor Program and an expanded

## Message from the Acting Center Director



Reduced-Gravity Student Flight Opportunities Program. Texas Aerospace Scholars served more than 230 high school juniors, and 39 students came from 15 countries to learn firsthand about America's space program.

The year marked the resumption of the Center's recruiting and hiring program. Our challenging and empowering work environment attracted 160 outstanding new people from around the country.

Year 2000 was a year to celebrate. We were "off the planet" to stay – and Johnson Space Center continued to improve life on our planet through the human enterprise of space exploration.

As the Acting Director of Johnson Space Center,  
I am proud to present the 2000 Annual Report.



Roy S. Estess

## Humans in Space

### **'Houston, Discovery. We read you loud and clear.'**

Human spaceflight is Johnson Space Center's (JSC) chief responsibility, including the recruiting and training of U.S. astronauts and the planning and operation of the International Space Station (ISS) and space shuttle flights. At century's end, NASA's shuttles had flown more than 100 missions – launching more than three million pounds of cargo and more than 600 crewmembers into space. Remarkably, 2001 begins with shuttle orbiters only about one-quarter of the way through their design life, and undergoing improvements to ensure future success.

All but the first shuttle mission in 2000 supported the International Space Station Program:

STS-99	3-D Earth mapping and imagery
STS-101	ISS servicing and supply
STS-106	ISS assembly – Service Module connections
STS-92	ISS assembly – Truss and docking port delivery
STS-97	ISS assembly – U.S. Solar Arrays delivery

Nine spacewalks totaled nearly 60 hours of extravehicular activity successes, the result of thousands of hours training at JSC's 6.2-million-gallon Neutral Buoyancy Lab and at its Russian equivalent in Star City, near Moscow.

### **A New International Home in Space**

The International Space Station grew in 2000 to 105 tons – about the mass of a space shuttle – and measured 240 feet wide at year's end. On November 2, the Expedition One crew arrived at the station in a Russian Soyuz capsule to begin a new era of continuous international cooperation in space.

The ISS Program involves 16 partner nations, five space agencies, and several languages and cultures. ISS operations require “24 and 7” attention – all day, every day, all year long – by Mission Control Centers at JSC and in Russia, and by the flight control centers of our international partners. In August, our new ISS flight control training facility opened. Named the “Red Flight Control Room,” it is used alone and in concert with the “White ISS Control Room,” and the “Blue Shuttle Flight Control Room” to train flight control teams for future assignments.

## Getting Ready for the Next Steps

JSC made significant progress during 2000 in critical research and development areas.

**Shuttle Safety** The new “glass cockpit” on *Atlantis* gave pilots more information in a more capable display. Congress provided additional funding for key safety upgrades, all designed to reduce the risks during ascent, orbit, and reentry, and to increase the “situational awareness” of shuttle crews during flight.

**Space Operations** The Space Operations Management Office worked to consolidate human spaceflight communications and data services. Launching the latest Tracking and Data Relay satellite marked a major achievement. We placed strong emphasis on the commercialization of key NASA assets and capabilities – to help U.S. companies “do business” in low Earth orbit.

**X-38 Program** This program reached several milestones in 2000, including the first successful test flight of the world’s largest parafoil, the testing aboard shuttles of the X-38 navigation system, and the test flight of the X-38’s final body shape configuration.

*JSC’s flight-related scientific and medical research efforts seek innovative ways for humans to live and thrive beyond the bounds of Earth.*



**TransHab Project** This proposed inflatable space module for human habitation was validated by two reviews during 2000. TransHab was shown to be architecturally compatible with the ISS. It also demonstrated a pressure vessel integrity to a safety factor of four, and the workability of its assembly techniques and vacuum deployment.

**Life Support Systems** Deep-space flight crews will one day harvest the research conducted in 2000 at JSC's BIO-Plex, the four connected modules in which people, plants, and machines work together as an autonomous system. BIO-Plex's closed-loop systems used lettuce, soybeans, and other crops to provide food, oxygen, and clean water.

**Orbital Debris Protection** JSC's patented "enhanced Whipple" shield design – incorporating aluminum, ceramics, and Kevlar-like fabric – was used in 2000 to protect the ISS U.S. Laboratory module from orbital fragments.

**White Sands Test Facility** JSC's testing and hazardous operations facility in New Mexico manufactured and tested the Oxygen Recharge Compressor Assembly for the ISS. White Sands also devised a new way to test the fire safety of medical oxygen regulators. Citing White Sands' exceptional level of environmental performance, the Environmental Protection Agency selected the facility as a charter member of its National Environmental Achievement Track.

## The Science and Medicine of Human Space Exploration

In 2000, JSC researchers produced more answers about the basics of life and human survival in microgravity, all the while

making more down-to-earth advances in the fields of medicine and human health.

JSC teamed with the National Space Biomedical Research Institute to develop a 15-year research and technology initiative focused on extended human spaceflights.

Celdyne Corporation received a patent license to use JSC-developed technology to manufacture hydrofocusing bioreactors, which enable investigations in three-dimensional cell culture and tissue engineering.

The Cellular Biotechnology Program developed a noninvasive optical sensor to measure the pH of cell culture media in microgravity.

JSC worked to develop new drug delivery systems for spaceflight crewmembers, and to extend drug shelf life for long-duration missions, under an expanded program with Texas A&M University's Center for Space Power and the new Center of Professional Excellence for Microencapsulation and Drug Delivery.

JSC also developed plans for a major new capability – the Bioastronautics Facility. This facility will provide a premier space biomedical research asset, available to researchers from around the world. Astronauts will benefit from state-of-the-art physical training and rehabilitation programs led by the most knowledgeable space medicine experts.

## Earth Science and Solar System Exploration

The planet Earth, her sister planets, and the very essence of our solar system were all subjects of JSC investigations during Year 2000.

**Genesis** In 2000, JSC scientists prepared the Genesis satellite, which will capture solar wind particles and return

them to Earth for analysis. JSC's Curation Facility will ensure contamination protection and the proper handling of samples brought back with Genesis.

**Moon Rocks and Meteorites** JSC investigators studied the Tagish Lake meteorite. This rare carbon-and-water-rich meteorite fell in 2000 onto a frozen lake in British Columbia and was transported to JSC's Curation Facility in a relatively pristine state. The meteorite contains the highest abundance of interstellar and stardust grains of any meteorite, and offers a record of galactic history before the formation of our own solar system.

**Astrobiology** JSC/NASA Astrobiology Institute scientists published two extensive, peer-reviewed articles in 2000. They presented evidence for mineral fossils in Martian meteorite ALH84001, and described the possible presence of bacteria fossils in Martian meteorites Nakhla and Shergotty. These meteorites are much younger than ALH84001, and suggest that life may have existed on Mars for much of its long history.

## The People of Johnson Space Center

A prime NASA goal is to enhance the quality of life on Earth. By "thinking globally and acting locally," the people of JSC demonstrated this commitment throughout 2000 as they strengthened community ties through education, technology, and service.

**JSC Open House** JSC's 2000 Open House gave the public an inside look at the space program and the spin-offs derived from NASA research. In August, more than 3,000 JSC volunteers hosted a record 130,000 visitors from Texas and around the world.

*JSC nurtures ties with business, research and educational communities locally and around the world to share the knowledge and advances achieved through space exploration.*



**Inspection 2000** Inspection 2000 exposed visitors to the latest in NASA-developed technologies – from robotic “grasping” technology to a new system that can deliver multiple drugs to vascular tumors. More than 2,100 professionals from industry, government, and academia took advantage of the three-day event in November. Registered guests from 28 countries and 42 states talked with NASA engineers and scientists about using space technologies in their own endeavors.

**Texas Aerospace Scholars** The Texas Aerospace Scholars Program served 230 Texas high school juniors in 1999-2000. Online lessons included research and development projects in space science and aerospace engineering. Throughout the summer, JSC hosted 30 scholars per week to work with NASA mentors on a design for a human mission to Mars. Ninety percent of these scholars said the program influenced their future choice of career.

**JASON Program** The JASON Foundation for Education uses interactive telecommunications to engage students in science and technology. JSC hosted the 2000 JASON XI event, “Going to Extremes: International Space Station vs. Aquarius.” More than one million students observed or participated in the adventure from Primary Interactive Network sites and via the Internet.

**SciAd Program** The Science Advisor Program – a NASA resource for teachers – completed its first year in Houston in 2000. One hundred JSC volunteers participated in SciAd, which was pioneered at JSC’s White Sands Test Facility.

**KC-135 Students Program** The Reduced-Gravity Student Flight Opportunities Program expanded in 2000 to include

community college students. This expansion was designed to reach those students who may not think of science and technology as career options. The KC-135 “Weightless Wonder” flights give high school, college, and university students theoretical, practical and sensory insight into science and microgravity.

**Distance Learning Education** In 2000, the Distance Learning and Education Project completed more than 800 events with elementary through high school students from 38 states and 9 countries. These typically 50-minute interactive teleconferences or Internet chat sessions cover aerospace careers, science, technology, and many aspects of spaceflight.

**Mars Settlement Competition** At the JSC-hosted second annual Mars Settlement Design Competition, 144 high school students “imagineered” living and working on the Red Planet one day.

**Longhorn Project** In an “Old Texas meets New Texas” kind of way, local high school students worked in 2000 to cultivate plants and raise longhorn cattle – right on the JSC campus near the new Western Heritage Pavilion. Meanwhile, the students learned about alternative plant growing techniques and closed-loop life support, which are vital to expanding our human presence in space. The Longhorn Project teamed JSC with a local school district, the Houston Rodeo and the Texas Longhorn Breeders Association.

**JSC Child Care Facility** The new JSC Child Care Center opened its doors in August 2000, expanding capacity nearly 70 percent and featuring many modern child care innovations. The facility meets accreditation requirements of the National Association for the Education of Young Children.





*The advances in  
science, technology,  
engineering, and  
medicine made by  
JSC's team of  
dedicated professionals  
enable us to explore  
our world and universe  
as never before, and  
to derive unparalleled  
benefits.*

## Financials

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**John H. Beall**  
Chief Financial Officer  
Johnson Space Center

**A**s the Lyndon B. Johnson Space Center Chief Financial Officer, I am pleased to present this annual report for fiscal year 2000. The financial statements provide the Center's results of operations and financial position for the year – reflecting our Center's unique mission and leadership in the aerospace industry.

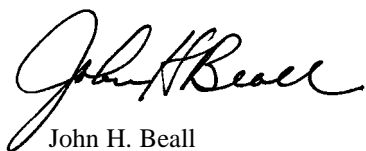
JSC continues to improve processes in an effort to provide

resource and financial management support of the highest caliber to the Center. We are implementing an electronic, Web-based time and labor system, Time and Labor Collection (TLC), which allows employees to enter and certifiers to approve time electronically.

This new system replaces the old labor-intensive manual system of timecards and labor distribution records and includes added benefits of online access to earned leave balances, the ability to enter time from remote locations, and eased ability to collect labor charges for full cost. The entire Center is expected to be using the new TLC system by early 2001.

JSC continues to support NASA's objective to enhance cost-effective mission performance through implementation of a full cost approach. The NASA full cost concept integrates full cost accounting, budgeting, and management practices to provide complete cost information for more fully informed decision-making and management. During fiscal year 2000, JSC began developing full cost reports that associate all Agency cost, including civil service labor and travel, general and administrative cost, and other operating costs, to NASA's major programs and projects.

JSC has excellent employees, exciting programs and a good financial state of health. I am proud of our accomplishments in fiscal year 2000 and look forward to the many challenges ahead of us for next year.

  
John H. Beall

## Message from the Chief Financial Officer



## Statement of Financial Position

as of September 30 (In Thousands)

Assets:	2000	1999
Intragovernmental Assets:		
Fund Balance with Treasury (Note 2)	\$ 1,413,007	\$ 1,236,169
Accounts Receivable, Net (Note 3)	4,838	1,771
Advances and Prepayments	214	12,613
Governmental Assets:		
Accounts Receivable, Net (Note 3)	549	1,025
Operating Materials and Supplies (Note 4)	2,079	2,365
Property, Plant, and Equipment, Net (Note 5)	10,043,375	10,528,577
Other Assets (Note 6)	935,489	700,704
Total Assets	\$ 12,399,551	\$ 12,483,224

### Liabilities:

Liabilities Covered by Budgetary Resources:		
Intragovernmental Liabilities:		
Accounts Payable	15,714	13,251
Other Liabilities (Note 7)	2,274	7
Governmental Liabilities:		
Accounts Payable	708,707	727,885
Other Liabilities (Note 7)	24,243	22,941
Total	\$ 750,938	\$ 764,084

Liabilities Not Covered by Budgetary Resources:		
Intragovernmental Liabilities:		
Other Liabilities (Note 7)	96	91
Governmental Liabilities:		
Other Liabilities (Note 7)	35,367	34,913
Total	\$ 35,463	\$ 35,004
Total Liabilities	\$ 786,401	\$ 799,088

### Net Position:

Balances:		
Unexpended Appropriations	667,155	487,493
Invested Capital	10,980,943	11,231,112
Donated Property	0	535
Cumulative Results of Operations	515	0
Future Funding Requirements	(35,463)	(35,004)
Total Net Position (Note 8)	\$ 11,613,150	\$ 11,684,136
Total Liabilities and Net Position	\$ 12,399,551	\$ 12,483,224

The accompanying notes are an integral part of these statements. These statements are for internal use and have not been audited.



# Statement of Operations and Changes in Net Position

for the year ended September 30 (In Thousands)

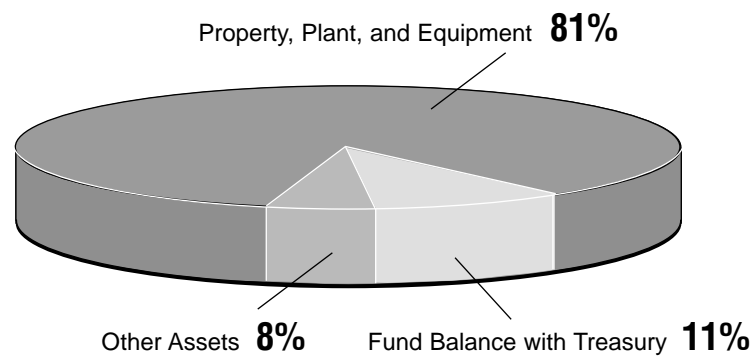
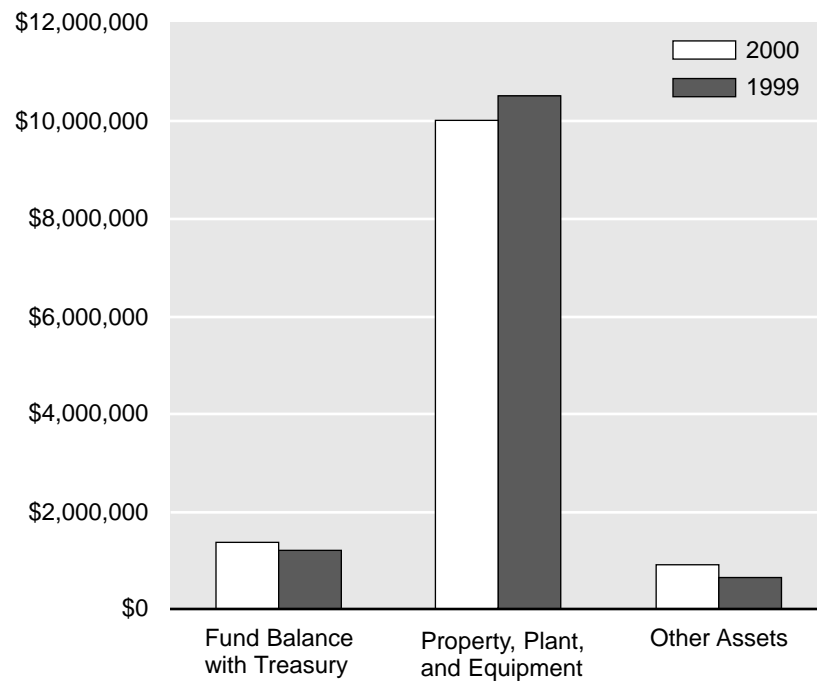
	2000	1999
Revenues and Financing Sources:		
Appropriated Capital Used	\$ 4,369,514	\$ 4,037,430
Revenues from Sales of Goods and Services		
To the Public	18,768	8,249
Intragovernmental	51,286	37,101
Total Revenues and Financing Sources	\$ 4,439,568	\$ 4,082,780
Expenses:		
Program or Operating Expenses		
Science, Aeronautics and Technology	366,032	196,467
Human Spaceflight	3,594,034	3,471,323
Mission Support	417,289	369,511
Research and Development	(6,534)	(853)
Spaceflight Control and Data Communications	(2,071)	(1,583)
Construction of Facilities	249	2,616
Research and Program Management	0	(51)
Total Program or Operating Expenses	4,368,999	4,037,430
Reimbursable Expenses	70,054	45,350
Total Expenses	\$ 4,439,053	\$ 4,082,780
Excess (Shortage) of Revenues and Financing Sources Over Total Expenses	515	0
Non-Operating Changes:		
Unexpended Appropriations	179,662	(35,972)
Donated Property	(535)	(5,529)
Invested Capital	(250,169)	191,492
Future Funding Requirements	(459)	(484)
Total Non-Operating Changes	\$ (71,501)	\$ 149,507
Excess (Shortage) of Revenues & Financing Sources Over Total Expenses and Non-Operating Changes	(70,986)	149,507
Net Position, Beginning Balance	11,684,136	11,534,629
Net Position, Ending Balance	\$ 11,613,150	\$ 11,684,136

The accompanying notes are an integral part of these statements. These statements are for internal use and have not been audited.

## Financial Highlights

	2000	1999	% Change
Fund Balance with Treasury	\$ 1,413,007	\$ 1,236,169	14%
Property, Plant, and Equipment	\$ 10,043,375	\$ 10,528,577	(5%)
Other Assets	\$ 935,489	\$ 700,704	34%

## Total Assets



## Note 1. Summary of Significant Accounting Policies

### Basis of Presentation

These financial statements were prepared to report the financial position and results of operations of Johnson Space Center (JSC), as required by the Chief Financial Officers Act of 1990 and NASA's Financial Management Manual. They were prepared from the books and records of JSC in accordance with the form and content for entity financial statements specified by Office of Management and Budget (OMB) Bulletin 94-01 and JSC's accounting policies as summarized in this note.

### Reporting Entity

JSC is one of nine NASA field centers and Headquarters established to aid NASA in its mission to provide for aeronautical and space activities. JSC's accounting system, called the Interactive Basic Accounting System (IBAS), is a mechanized system that uses the single-source data entry concept to reduce the redundancy of data entry. Multiple transactions are entered into the system simultaneously using transaction codes that instruct the system to post debits and credits to the appropriate general ledger accounts. JSC's systems provide payroll and labor accounting for approximately 3,115 employees and process approximately 300,000 non-payroll-related accounting transactions monthly. These transactions update the Financial and Contractual Status (FACS) report and the General Ledger. This data provides the basic information necessary to meet internal and external financial reporting requirements and provides both fund control and accountability.

### Budgets and Budgetary Accounting

There are seven basic appropriations that require individual treatment in the JSC system of accounting and control. They are Science, Aeronautics and Technology (SAT), Human Space Flight (HSF), Mission Support (MS), Spaceflight Control and Data Communications (SFCDC), Research and Development (R&D), Research and Program Management (R&PM), and Construction of Facilities (C of F).

- (1) The SAT appropriation for program years 1995 and forward provides funding for research and development activities. This includes funds to:
  - extend our knowledge of the Earth, its space environment, and the universe
  - invest in new aeronautics and advanced space technologies that support the development and application of technologies critical to the economic, science, and technical competitiveness of the United States

- (2) The HSF appropriation for program years 1995 and forward provides funding for human spaceflight activities. This includes funding for:
  - the International Space Station
  - the Space Shuttle Program
  - payload and utilization operations
  - flight support for cooperative programs with Russia
- (3) The MS appropriation for program years 1995 and forward provides funding for:
  - civil service workforce
  - space communication services
  - safety and quality assurance activities
  - maintenance activities
- (4) The SFCDC appropriation for program years 1994 and prior provides funding for:
  - spaceflight
  - spacecraft control and communication activities
  - operations, production services, and other activities related to spaceflight
- (5) The R&D appropriation for program years 1994 and prior provides funding for:
  - research and development of space vehicles
  - space systems
  - other related activities
- (6) The R&PM appropriation for program years 1994 and prior provides funding for:
  - civil service salary
  - civil service travel
  - related expenses for civil servants required to manage and conduct programs
- (7) The C of F appropriation for program years 1994 and prior provides funding for:
  - construction, repair, rehabilitation and modification of facilities
  - minor construction of new facilities
  - additions to existing facilities
  - facility planning and design

In addition to the basic operating programs described above, the JSC financial management program included reimbursable activity of approximately \$70 million during fiscal year 2000. The reimbursable program requires special management reports to monitor advance payments from customers maintained on deposit with the Treasury.

### Basis of Accounting

JSC records transactions on an accrual accounting basis and a budgetary basis. Under the accrual method, revenues are recognized when earned, and expenses are recognized when a liability is incurred, without regard to receipt or payment of cash. Expenses are classified in the accounts according to the appropriation that financed the activity. These expenses are coded in accordance with the Agencywide coding structure, which sets forth a uniform classification of financial activity that is used for planning, budgeting, accounting, and reporting. The expenses are categorized in the general ledger as operating expenses or capitalized expenses. Appropriated capital used does not include amounts capitalized. Budgetary accounting facilitates compliance with legal constraints and controls over the use of federal funds.

### Revenues and Other Financing Sources

JSC receives the majority of the funding needed to support its programs through appropriations. JSC receives both annual and multiyear appropriations that we use, within statutory limits, for operating and capital expenditures. We obtain additional amounts through reimbursements for services performed for the public and other federal agencies.

### Funds with the Treasury

JSC does not have disbursing authority and does not maintain cash in commercial bank accounts. The Treasury processes all cash receipts and disbursements. The funds with the Treasury include appropriated funds and deposit funds received from the public as advance payments for reimbursable services.

### Advances

For the most part, JSC funds its University Contracts and Grants Program through the use of a letter of credit system and the automated clearinghouse method of providing advance payments of federal funds to recipient organizations. Recipients are required to schedule drawdowns to coincide with actual, immediate cash requirements in accordance with Department of the Treasury regulations. Quarterly reporting by recipients to NASA is provided on Federal Cash Transactions Reports (SF 722). We maintain detailed accounting records and monitor audits by the Defense Contract Audit Agency and NASA's Office of Inspector General of the grantees.

### Accounts Receivable

Most receivables are due from other federal agencies for reimbursement of research and development services related to satellites and launch services. Non-federal customers provide advance payments placed on deposit with the Treasury until services are performed.

The allowance for uncollectible accounts is based upon an evaluation of each individual accounts receivable, considering the probability of failure to collect based upon current status, financial and other relevant characteristics of debtors, and the relationships with the debtor. Under a cross-servicing arrangement, accounts receivable over 180 days delinquent are turned over to the Department of the Treasury for collection.

### Prepaid Expenses

Payments in advance of the receipt of goods and services are recorded as prepaid charges at the time of prepayment and recognized as expenses when related goods and services are received.

### Operating Materials and Supplies

In accordance with Statement of Federal Financial Accounting Standards (SFFAS) Number 3, Accounting for Inventory and Related Property, materials held by JSC that are repetitively procured, stored, and issued on the basis of demand, are considered Operating Materials and Supplies.

Government-Owned/Contractor-Held inventories are material at both contractor and NASA facilities, but under contractor control and accountability and used for programs and projects under contract.

### Property, Plant, and Equipment

NASA-owned Property, Plant, and Equipment is held by JSC and its contractors. Property and equipment with a unit cost of \$100,000 or more and a useful life of two years or more, that will not be consumed in an experiment, is capitalized. Capitalized cost includes all costs incurred by NASA to bring the property to a form and location suitable for its intended use.

Real property such as buildings, other structures, and facilities is capitalized when the asset value is \$100,000 or more. The capitalized value represents the total cost to NASA, including both acquisition and preparation costs. Buildings are valued



at acquisition cost, including the cost of capital improvements and fixed equipment required for functional use of the facility. Other structures include the acquisition cost of capital improvements.

Property and equipment includes special tooling, special test equipment, and space hardware, such as the Space Shuttle, and other configurations of spacecraft: engines, unlaunched satellites, rockets, and Space Station and other scientific components unique to NASA's space programs. Space hardware represents the largest dollar value of assets owned by JSC. Buildings, Structures, Facilities and Leasehold Improvements includes buildings with collateral equipment, and capital improvements such as airfields, power distribution systems, flood control, utility systems, roads, and bridges.

Government-Owned/Contractor-Held property includes land, buildings, structures, materials, plant equipment, space hardware, special tooling and special test equipment. Under provisions of the Federal Acquisition Regulation (FAR), contractors are responsible for control over and accountability for Government-Owned property in their possession. NASA's contractors report on NASA property in their custody annually, as of September 30, on a NASA Form 1018, NASA Property in the Custody of Contractors. The NASA Form 1018 is certified by the contractor's representative and approved by a government property administrator.

NASA made significant changes in its property, plant, and equipment accounting and reporting policies and practices in FY 1998 to implement the requirements of SFFAS Number 6, "Accounting for Property, Plant, and Equipment," and Number 8, "Supplementary Stewardship Reporting." Major changes included recognizing depreciation, capitalizing assets in space, and reporting heritage assets as Supplementary Stewardship Information. However, JSC only incorporated the capitalization threshold change of \$100,000 from \$5,000 and the write-off of heritage assets in this annual report. JSC continues to maintain physical accountability for property, plant, and equipment at lower values.

#### Other Assets

Other assets are comprised entirely of Government-Owned/Contractor-Held materials.

#### Liabilities Covered by Budgetary Resources

Accounts payable includes amounts recorded for receipt of goods or services furnished to the Agency, based on billings rendered. Additionally, JSC accrues cost and recognizes liability based on information provided monthly by contractors on NASA Contractor Financial Management Reports (NASA Forms 533M and Q). JSC relies on independent Defense Contract Audit Agency (DCAA) audits to ensure reliability of reported costs and estimates. To provide further assurance, financial managers are required to test the accuracy of cost accruals generated from the NF 533's monthly, and NASA Headquarters independently analyzes the validity of Centers' data.

#### Liabilities Not Covered by Budgetary Resources

NASA's liabilities not covered by budgetary resources include environmental matters, legal claims, pensions and other retirement benefits (ORB), workers' compensation, annual leave (see discussion below) and closed appropriations.

JSC had approximately \$261 million in contingent liabilities as of September 30, 2000. These contingent liabilities include legal actions and contract termination liability. Since the probability of occurrence for these contingent liabilities is remote for any future payments, no liability was recorded in the financial statements.

#### Employee Benefits

JSC's employees participate in the Civil Service Retirement System (CSRS), a defined benefit plan, or the Federal Employees Retirement System (FERS), a defined benefit and contribution plan. For CSRS employees, NASA makes matching contributions equal to 7 percent of pay. For FERS employees, NASA automatically contributes 1 percent of pay to a retirement savings plan and matches employee contribution up to an additional 4 percent of pay, and also contributes the employer's matching share for Social Security.

## Notes to the Financial Statements

### Note 2. Fund Balance with Treasury: (In Thousands)

	Obligated	Unobligated Available	Unobligated Restricted	Total
Appropriated Funds	\$ 1,259,661	\$ 145,532	\$ 7,322	\$ 1,412,515
Trust Funds	49	131	0	180
Total	\$ 1,259,710	\$ 145,663	\$ 7,322	\$ 1,412,695
Deposit Accounts				6
Clearing Accounts				306
Total				\$ 1,413,007

### Note 3. Accounts Receivable, Net: (In Thousands)

	Entity Accounts Receivable	Non-Entity Accounts Receivable	Allowance for Uncollectible Receivable	Net Amount Due
Intragovernmental	\$ 4,783	\$ 55	0	\$ 4,838
Governmental	526	75	(52)	549
Total	\$ 5,309	\$ 130	\$ (52)	\$ 5,387

### Note 4. Operating Materials and Supplies: (In Thousands)

	2000	1999	Valuation Method
Stores Stock	\$ 313	\$ 411	Weighted Avg
Standby Stock	1,766	1,954	Weighted Avg
Total	\$ 2,079	\$ 2,365	

Stores Stock is material JSC holds in inventory that is repetitively procured, stored and issued on the basis of recurring demand.

Standby Stock is material held for emergencies whose stock levels are not based on demand criteria.

**Note 5. Property, Plant and Equipment:** (In Thousands)

	2000	1999	Change
<hr/>			
Government-Owned/Held:			
Land	\$ 8,797	\$ 8,797	\$ 0
Structures, Facilities & Leasehold Improvements	543,050	532,913	10,137
Equipment	310,840	294,482	16,358
Construction in Progress	5,593	9,630	(4,037)
Total	\$ 868,280	\$ 845,822	\$ 22,458
<hr/>			
Government-Owned/Contractor-Held			
Land	\$ 2,141	\$ 2,141	\$ 0
Structures, Facilities & Leasehold Improvements	47,680	42,262	5,418
Equipment	431,739	418,873	12,866
Special Tooling	40,689	41,888	(1,199)
Special Test Equipment	216,193	213,775	2,418
Space Hardware	7,449,351	7,933,386	(484,035)
Construction in Progress	987,302	1,030,430	(43,128)
Total	\$ 9,175,095	\$ 9,682,755	\$ (507,660)
<hr/>			
Total	\$ 10,043,375	\$ 10,528,577	\$ (485,202)
<hr/>			

**Note 6. Other Assets:** (In Thousands)

	2000	1999	Change
<hr/>			
Contractor-Held Materials	\$ 935,489	\$ 700,704	\$ 234,785
<hr/>			

Increase is the result of a change in accounting policy between contractors from Space Hardware to Materials for FY 2000.

## Notes to the Financial Statements

### Note 7. Other Liabilities: (In Thousands)

#### Liabilities Covered by Budgetary Resources:

	Current	Non-Current	Total
Intragovernmental Liabilities:			
*Liability for Deposit and Suspense Funds	\$ 2,274	\$ 0	\$ 2,274
Governmental Liabilities:			
*Liability for Deposit and Suspense Funds	\$ (324)	\$ 0	\$ (324)
Accrued Funded Payroll and Benefits	24,567	0	24,567
Total	\$ 24,243	\$ 0	\$ 24,243

#### Liabilities Not Covered by Budgetary Resources:

	Current	Non-Current	Total
Intragovernmental Liabilities:			
Accounts Payable for Closed Appropriations	\$ 0	\$ 96	\$ 96
Governmental Liabilities:			
Accounts Payable for Closed Appropriations	\$ 170	\$ 10,936	\$ 11,106
Unfunded Annual Leave	24,261	0	24,261
Total	\$ 24,431	\$ 10,936	\$ 35,367

\*Liabilities include cash advances received from other government agencies and public reimbursable customers.

Also included are funds on deposit with the Treasury for employees' savings bonds and state tax withholdings.

### Note 8. Net Position: (In Thousands)

	Trust Funds	Appropriated Funds	Total
Unexpended Appropriations:			
Undelivered	\$ 49	\$ 514,121	\$ 514,170
Unobligated:			
Available	131	145,532	145,663
Unavailable	0	7,322	7,322
Invested Capital	0	10,980,943	10,980,943
Cumulative Results of Operations	0	515	515
Future Funding Requirements			
Annual Leave	0	(24,261)	(24,261)
Closed Appropriations	0	(11,202)	(11,202)
Total	\$ 180	\$ 11,612,970	\$ 11,613,150



The Chief Financial Officer (CFO) commits to providing the most current and accurate information in regard to budget, resources, and financial management activity at JSC. We support continual improvement of our products and services and particularly promote a strong focus on customer requirements. We monitor information relating to our customers and clientele, striving to measure and achieve customer satisfaction.

The JSC CFO is responsible for:

- Implementing overall agency policies, guidelines, and procedures for budget administration, financial reporting, and financial management systems;
- Maintaining liaison with NASA Headquarters and the Office of Management and Budget (OMB), the Department of Treasury, the General Accounting Office (GAO), and various congressional committees with Agency financial management oversight.

The JSC CFO's priority goals and objectives and related initiatives focus on efficient and effective: (1) Operations, (2) Staff, (3) Systems, (4) Statements and Reporting, (5) Streamlining, and (6) Standards. These goals and objectives are being pursued through several related Agency strategies. JSC's goals, objectives, strategies, and related initiatives also directly support counterpart federal financial management goals and strategies.

JSC's fundamental financial and resources management goal focuses on efficient and effective support of NASA missions. To achieve and sustain this fundamental goal, JSC must achieve several interrelated goals and objectives by:

- (1) effectively and efficiently planning, monitoring, controlling and managing financial and resources management operations;
- (2) maintaining a financial management professional staff with appropriate expertise and excellence;
- (3) implementing a flexible, integrated, cost-effective financial system compliant with federal and Agency standards, and one that provides timely, relevant and useful information for program and mission support;
- (4) providing timely, accurate, useful, reliable, and verifiable external financial statements, financial performance information and internal financial information;

- (5) streamlining financial and resources management policies, practices, processes, and operations consistent with legal, regulatory and related guidance and requirements; and
- (6) effectively implementing federal and Agency standards and initiatives.

In addition, in implementing its financial and resources management activities, JSC must also maintain appropriate mission and customer support and implement all activities consistent with applicable legal and regulatory requirements.

### Operations

JSC is working to enhance its ongoing financial and resource management operations. These operations are critical to full accountability and disclosure and to effective stewardship of federal resources. These operations include timely, complete formulation and execution of the budget; timely, accurate accounting for JSC's activities, assets, liabilities, and equity; and timely payment of its creditors, including payments to numerous vendors that provide goods and services to JSC.

In addition, JSC must continuously monitor Agency component compliance with established federal and Agency financial and resource management policies and practices. One key element of JSC's Financial Management operations involves ongoing monitoring of key performance metrics. NASA reviews JSC's ongoing operations through a quality assurance process.

### Staff

JSC has a professional staff with capabilities commensurate with the challenging requirements of the current and future federal financial and resource management environment. In that regard, JSC maintains an appropriate organizational structure for financial and resource management activities, maintains appropriate professional standards for critical positions, appropriately assesses and motivates exceptional performance, maintains effective intra-Agency communications, and appropriately trains and develops the entire JSC financial and resource management workforce.

### Systems

In February 1995, NASA initiated the Integrated Financial Management Program (IFMP). Its goal is to establish an integrated financial management system, compliant with Federal Joint Financial Management Improvement Program (JFMIP) requirements.

## Management Discussion and Analysis

JSC supports the move of its financial systems from an existing baseline structure to a targeted new structure. The existing baseline structure comprises a series of Agencywide and Center-unique automated systems, which support budget, financial, and procurement functions.

In order to achieve the targeted new structure, NASA has initiated activities that are resulting in standard Agency business processes and systems. The target integrated system will provide a financial management core, together with integrated budget, procurement, time and attendance, human resources, logistics, and travel modules to meet the needs of functional managers and end users, as well as decision-makers at all levels.

### Statements and Reporting

JSC provides reliable, useful, verifiable, timely financial resources and performance information and reports on its operations and activities. In that regard, JSC has achieved significant reporting improvements during the past few years and plans to continue to enhance such reporting in the future. During 2000, NASA received its sixth consecutive unqualified audit opinion on its 1999 Agencywide financial statements. JSC participated in the annual audit by providing the appropriate financial management and reporting to NASA and assisted the auditors in their review of our financial systems. These statements were developed internally and, accordingly, are unaudited.

### Streamlining

JSC has made significant progress in its movement toward a smaller, but more focused, civil service workforce. We have accomplished most of our reduction goals and are able now to make a few limited new hires as additional attrition occurs.

### Standards

During the next several years, JSC must effectively and efficiently implement a variety of new federal and Agency standards and initiatives to support long-term financial and resource management excellence. These standards include recent federal standards related to managerial cost accounting (full cost), as well as other key federal and Agency initiatives.

JSC continues to support NASA's objective to enhance cost-effective mission performance through implementation of a full cost approach. The NASA full cost concept integrates full cost accounting, budgeting and management practices to provide complete cost information for more fully informed decision-making and management. JSC is actively participating

on Agency teams to ensure our activities are compatible with Agency full cost objectives and full cost initiatives at other NASA centers. The JSC and NASA full cost efforts remain consistent with sound business practices and legislative and administrative guidance contained in the 1990 Chief Financial Officers Act, 1993 Government Performance and Results Act, 1993 National Performance Review, and 1996 Federal Financial Management Improvement Act.

During 2000 JSC began working on interim full cost activities, the first step toward full cost implementation. JSC is developing cost reports that associate all Agency costs, including civil service labor and travel, general and administrative costs, and other associated operating costs, to NASA's major programs and projects. The data is being extracted from JSC's current financial systems, providing the opportunity to review current financial software programs and processes in preparation for transition to the IFMP software.

Interim full cost activities and products will also enable JSC and NASA to further transition to full cost management in FY 2001. JSC will use this interim full cost information to educate internal management and external customers on the full cost of NASA's programs and projects and begin to examine the technical and content tradeoff possibilities under a full cost approach.

### Resource Management

Resource Management serves as the focal point for Center financial and workforce planning, including budget execution and implementation. Resource Management interfaces with the technical organization for budget planning, implementation, and execution. The Central Budget Office provides the following centralized functions to Center organizations:

- (a) provides overall policy, advice, procedures, and automated tools to accomplish Center resource planning and execution;
- (b) serves as the project office for JSC institutional management by providing advice and staff support to Center management;
- (c) coordinates, issues, reviews, and submits all Center program and institutional operating plans for financial and manpower data;
- (d) facilitates utilization of Center resources through distribution and control of resources authority;

- (e) provides resource reporting and variance analysis and performance analysis to Center management;
- (f) responds to special projects and actions.

### Financial Management

The Financial Management Division (FMD) is responsible for providing internal controls to safeguard assets, promoting the accuracy and reliability of financial data, and encouraging adherence to approved NASA financial management policies. FMD established a system of checks and balances to detect and disclose any conditions and transactions not in conformance with legal, administrative, and accounting requirements, and to ensure that funds are disbursed only for the purposes for which they are legally available and administratively authorized.

In FY 2000, FMD submitted uncollectible delinquent accounts receivable to the Debt Management Service in compliance with the Debt Collection Improvement Act of 1996. FMD submitted for delinquent debt collection receivables totaling approximately \$17,542 including interest, penalties and administrative charges.

JSC began looking for a better method of collecting time and labor data. One of the primary features was a Web-based time and labor collection system that allows employees to enter and certifiers to certify time electronically. The new system will replace the old manual system of timecards and labor distribution records.

After researching and benchmarking many commercial vendors and government providers, the Time and Labor Collection (TLC) team selected the Department of the Interior's (DOI's) Quicktime. Quicktime is a complete, secure, high-performance, Web-based system that is designed and built to conform to government time and attendance rules. At JSC, DOI's Quicktime application is referred to as the JSC TLC System.

The system was successfully piloted, including the testing of the interfaces to the NASA Personnel/Payroll System and the Labor Distribution System during the summer of FY 2000. The 300 users in the pilot group were implemented in the TLC system beginning August 27, 2000. The Centerwide phased implementation began October 8, 2000, and is on schedule with approximately 1,900 employees now using the TLC system as their means of submitting time and attendance and labor collection data to Payroll. The entire Center is expected to be using the new TLC system by early 2001.

With the TLC system, employees can access their earned leave balances and enter their time daily from remote locations. Remote users can access the system as long as they have dial-in access to the JSC network. Users will access TLC through the Internet from a link on the TLC homepage. The TLC system provides an easier, faster, state-of-the-art time and labor process for JSC employees.

## Supplemental Information

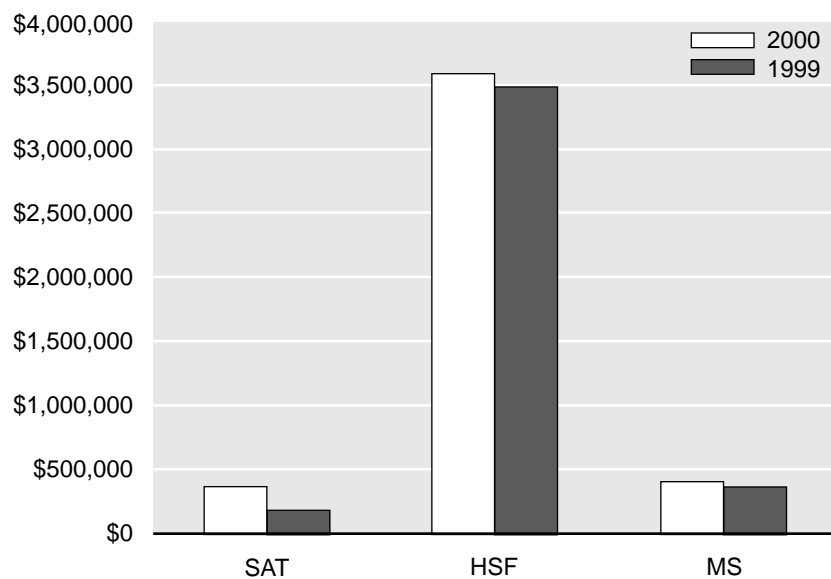
### Accrued Expenditures: (In Thousands)

	2000	1999	% Change
Accrued Expenditures, Appropriated, Gross	\$ 4,330,228	\$ 4,276,490	1%
Less: Funded Changes in Capitalized Assets & Inventory	(39,286)	239,060	(116%)
Accrued Expenditures, Appropriated, Net	4,369,514	4,037,430	8%


### Program Expenses: (In Thousands)

	2000	1999	Change
Science, Aeronautics and Technology (SAT)	\$ 366,032	\$ 196,467	\$ 169,565
Human Space Flight (HSF)	3,594,034	3,471,323	122,711
Mission Support (MS)	417,289	369,511	47,778
Research and Development (R&D)	(6,534)	(853)	(5,681)
Space Flight Control and Data Communications (SFCDC)	(2,071)	(1,583)	(488)
Construction of Facilities (C of F)	249	2,616	(2,367)
Research and Program Management (R&PM)	0	(51)	51
Total Program Expenses	\$ 4,368,999	\$ 4,037,430	\$ 331,569

### Current Appropriations







*Assembly for the  
International Space  
Station begins sixty feet  
under water in JSC's  
award-winning Neutral  
Buoyancy Laboratory  
where, in 2000, astronauts  
spent 1,868 hours learning  
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